



February 5, 2013

**STATEMENT OF AES PUERTO RICO, L.P. FOR THE RCRA § 7003
ADMINISTRATIVE RECORD REGARDING
THE MANUFACTURE, STORAGE AND USE OF AGGREGATE
AND OTHER COAL COMBUSTION PRODUCTS PRODUCED
AT THE AES PUERTO RICO FACILITY**

If EPA Region 2 were to order AES Puerto Rico, L.P. ("AES Puerto Rico") under Section 7003 of the Resource Conservation and Recovery Act ("RCRA") to cease the beneficial use of its manufactured aggregate (AGREMAX) in Puerto Rico, to construct a lined monofill at the plant site ("Facility" or "Plant") to store or dispose of AGREMAX or other coal combustion products ("CCPs"), and/or to take other unspecified actions regarding its CCPs, AES Puerto Rico submits that such action would be premature, arbitrary and capricious, or otherwise contrary to law.

First, requiring AES Puerto Rico to dispose of AGREMAX in a lined monofill at its Facility would violate current local law, which prohibits any disposal at the Facility. These local laws include an ordinance enacted by the Guayama municipal government where the AES Puerto Rico Facility is located, the Power Purchase Agreement between AES Puerto Rico and Puerto Rico Electric Power Authority ("PREPA"),¹ as well as the original approval by the Puerto Rico Planning Board. *See* Planning Board Resolution Third Extension to Location Approval (Consulta de Ubicacion) Number 94-71-1099-JPU (May 1, 1996) ("Planning Board Resolution") ("If no product is developed for the ash, it will be disposed of outside of Puerto Rico.") (Exh. 3, including unofficial translation of excerpt from Planning Board Resolution). Moreover, even overcoming those obstacles, siting a monofill could entail an extensive permitting process under Puerto Rico law, assuming a monofill were subject to Puerto Rico Environmental Quality Board ("EQB") landfill requirements.²

Second, even if current law did not prohibit the disposal of AGREMAX at the Facility, EPA does not have an adequate basis as a matter of law or fact to issue an order. Section 7003 of RCRA authorizes EPA to issue an administrative order only if it has "evidence" that a person "has contributed" or "is contributing" to the "past or present handling, storage, treatment, transportation or disposal of any solid waste or hazardous waste" that "may present an imminent

¹ *See* Letter from S. Boxerman to G. Nurkin (Dec. 20, 2012) (Exh. 1); *see also* Municipality of Guayama Ordinance No. 35, Serie 2011-2012 (Mar. 29, 2010); Municipality of Guayama Ordinance No. 8, Serie 2012-2013, amending Ordinance No. 35, Serie 2011-2012 (July 20, 2012); Unofficial Translation of Amended Ordinance (collectively Exh. 2).

² Under Puerto Rico's solid waste program, a monofill would be considered a Sanitary Landfill System ("SLS"). Puerto Rico has separate requirements for (1) land use site location approval (Location Approval) of an SLS, and (2) the design, construction and operation of the SLS. The land use approval and construction permitting process is regulated pursuant to the Land Use and Construction Joint Permits Regulation promulgated by the Permits Management Office. *See* Department of State Regulation No. 7951 of November 30, 2010. The SLS design criteria and operating permit process is regulated pursuant to Chapter IV and Chapter IX of the Non-Hazardous Solid Waste Management Regulation promulgated by EQB. *See* Department of State Regulation No. 5717 of November 14, 1997. Other permits may also have to be modified.



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and substantial endangerment to health or the environment.” 42 U.S.C. § 6973. As EPA’s RCRA Guidance advises, “the Region should not consider initiating action under Section 7003 unless there is adequate evidence that all requirements of Section 7003(a) have been met.”³

However, EPA Region 2 has not presented *evidence* that establishes RCRA § 7003’s basic requirements. For one, EPA has not adduced evidence that the manufactured aggregate produced at the AES Puerto Rico’s Facility is either a “hazardous waste” or a “solid waste” that has been discarded. Absent proof that the aggregate is either a hazardous waste or a solid waste, EPA has no authority to act under RCRA § 7003. Indeed, not only has EPA failed to prove the aggregate is either a hazardous or solid waste, the Puerto Rico authorities have repeatedly acknowledged that the aggregate is *not* a “waste” but a product that may be put to beneficial use. Further, AES Puerto Rico has conducted engineering analyses that demonstrate AGREMAX is an effective aggregate material in roads and structural applications, including in specific applications in Puerto Rico. EPA has shown AES Puerto Rico no data or other evidence to the contrary.

Moreover, even if EPA could establish that the aggregate is a “solid waste,” EPA has presented no credible evidence that either storage of the aggregate at the Facility or the use of the aggregate in roads and other applications is creating conditions that “may present an imminent and substantial endangerment to health or the environment.” Indeed, EPA has not presented any site-specific data from any location that indicates the aggregate presents an actionable risk. To the contrary, when properly analyzed, the available data (including EPA’s recently presented Leaching Environmental Assessment Framework testing) demonstrate that the aggregate material does *not* present an imminent and substantial endangerment warranting action under RCRA § 7003.⁴

I. Background

AES Puerto Rico has summarized the background surrounding the production and beneficial use of manufactured aggregate in its response to a September 26, 2012 letter from Richard Webster asserting that the advocacy group Komite Dialogo Ambiental, Inc. intends to bring a citizen’s suit against AES Puerto Rico and others under RCRA §7002. *See* Letter from S. Boxerman to R. Webster (November 30, 2012) (Exh. 5). We attach and incorporate that letter here. In sum:

³ EPA, Office of Enforcement and Compliance Assurance, *Guidance on the Use of Section 7003 of RCRA*, EC-G-1998-378 (Oct. 1997), available at <http://www.epa.gov/compliance/resources/policies/civil/rcra/rcrasect7003-rpt.mem.pdf>. If EPA Region 2 issues an Order, EPA should include in any underlying administrative record all correspondence with AES Puerto Rico related to AGREMAX and the attachments to those letters and emails, including this submission, that are not confidential business information or submitted for settlement.

⁴ *See* Letter from S. Boxerman to G. Nurkin (January 10, 2013) (Exh. 4), discussed *infra*.



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A. The AES Puerto Rico Facility

In 1994, AES Puerto Rico entered into a long-term Purchase Power Agreement with PREPA, the utility that supplies virtually all of Puerto Rico's electric power. Under the Agreement, AES Puerto Rico agreed to construct and operate a new coal-fired power plant, and to sell its electric power exclusively to PREPA. AES Puerto Rico subsequently invested more than \$800 million to develop and construct the 454.3 megawatt plant and related facilities in an industrial area of Guayama.⁵ Since operations began in 2002, the AES Puerto Rico Facility has provided steady employment for over 100 people and produced approximately 15% of Puerto Rico's total electric power needs at relatively low costs.

The AES Puerto Rico Facility was constructed with state-of-the-art emission controls, using circulating fluidized bed ("CFB") technology, which allows it to produce lower NO_x emissions. In addition, the action of the fluidized bed when mixed with limestone or other sulfur-absorbing materials greatly reduces SO₂ emissions. EPA Region 2 authorized these and other emission-controls as best available control technology under a Clean Air Act Prevention of Significant Deterioration ("PSD") permit.⁶ The Facility also has a Clean Air Act Title V Operating Permit issued by the Puerto Rico Environmental Quality Board ("EQB"), that was subject to EPA review.⁷ The Facility is a "zero water discharge" facility, meaning that all process water from operations is recycled or reused without discharge into the environment.

⁵ The AES Puerto Rico facility is not in a residential area, but is surrounded on three sides by industrial facilities; the fourth side borders the Caribbean Sea. Bordering the site to the east is a former Chevron oil refinery and bulk storage area. To the north and west is a former Smith, Kline & Beecham plant, now known as ChemSource Corporation; and further north are various other pharmaceutical and biotechnology facilities. Several of the industrial facilities located north of the site, including the northern portion of the site itself, are located within the Fibers Public Supply Well Superfund Site study area which is undergoing groundwater remediation. The former Chevron facility has also documented releases to ground water and has been undergoing RCRA corrective action since 1995.

⁶ See W. Muszynski, EPA Region 2 to S. Slusser, AES Puerto Rico, Prevention of Significant Deterioration (PSD) Permit for the Proposed AES Puerto Rico Cogeneration Plant (AES-PRCP) Administrative Permit Modification (Oct. 29, 2001) (Exh. 6) ("PSD Permit"), available at <http://www.epa.gov/region2/air/permit/AES10292001.pdf>. The limits are among the lowest for any coal plant in the United States, with an SO₂ emission rate of only 0.022 lbs/MMBtu, and a PM/PM-10 emission rate of 0.015 lbs/MMBtu. *Id.*, Attachment II, at Sections VIII.1.a.1, 4.a.1.

⁷ See Puerto Rico EQB, Title V Operating Permit No. PFE-TV-4911-30-0703-1130 (Nov. 15, 2011) (Exh. 7) ("Title V Permit"), available at <http://www2.pr.gov/agencias/jca/Documents/Permisos%20y%20Formularios/Calidad%20de%20Aire/Permisos%20de%20Operaci%C3%B3n%20T%C3%ADtulo%20V%20Finales/AES%20FINAL%20Permit.pdf>.



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**B. The Puerto Rico and Federal Governments Have Approved—and
Encouraged—the Beneficial Use of AES Puerto Rico’s CCPs, Including
Manufactured Aggregate**

Because AES Puerto Rico was planning to produce electricity from coal, it was known from the outset that the Facility would be producing coal combustion products. AES Puerto Rico’s original Purchase Power Agreement addressed this by providing that the plant’s CCPs would be used beneficially or taken off the Island, but would not be discarded in a local landfill.⁸ To ensure all beneficial uses were lawful, AES Puerto Rico obtained the necessary approvals, conducted environmental testing, and performed engineering studies, before implementing a program to market the CCPs for beneficial use.

1. May 1, 1996 Puerto Rico Planning Board Approval and Preparation of the Environmental Impact Statement. On May 1, 1996, the Puerto Rico Planning Board approved the siting of the AES Puerto Rico Facility subject to the requirement that coal ash produced by the AESPR Facility would “be converted into secondary and useful products, [including] ... use in the underlining of roads, mineral fill in asphalt, structural fill, [or] daily covering for sanitary fill” See Planning Board Resolution, Unofficial Translation, *supra* (Exh. 3). As part of this action, the Planning Board specifically approved siting of an aggregate processing area, an aggregate storage pile, and a storage pond to collect “runoff water from the ... manufactured storage area.” See *id.* at 2 (Exh. 3).

Before approving the Facility siting, the Planning Board was required to evaluate the environmental consequences of this decision by preparing an Environmental Impact Statement (“EIS”) that assessed the impacts of Facility’s construction and operation, as well as alternatives and potential mitigation measure.⁹ The EIS provides that that coal ash “will be processed to generate three (3) byproducts that are safe solid materials used in the construction, mining and agriculture industries. . . . The designer will not dump the ash as waste in local dumping places.”¹⁰ The EIS also explained that “[t]he ash that results from coal combustion in the CFB

⁸ See Excerpt from Power Purchase and Operating Agreement between AES Puerto Rico, L.P. and Puerto Rico Electric Power Authority § 6.6 (Oct. 11, 1994) (Exh. 8) (providing that combustion by-products produced by the Facility could be “used for beneficial commercial uses,” but would not be disposed of “anywhere in the Commonwealth of Puerto Rico”).

⁹ The EIS was prepared under a Puerto Rico law, Law No. 9 of 18 June 1970, P.R. Laws Ann. 12 § 1121, *et seq.*, that closely parallels the federal National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.* See *Mision Industrial de P.R. Inc. v. Junta de Calidad Ambiental de P.R.*, 145 D.P.R. 908, 921, 1998 PR Sup. LEXIS 121 at *15 (1998) (comparing the two laws) (Exh. 9).

¹⁰ Excerpt of Puerto Rico Planning Board Preliminary Ambient Impact Statement (“EIS”) § 4.6.7 (Mar. 23, 1995) (Exh. 10).



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boilers is an inert material and is not toxic [and] is not considered as a hazardous material according to Subtitle C of [RCRA].” *Id.* § 4.6.7.1 (Exh. 10).

The Puerto Rico EQB reviewed and approved the EIS, finding that it satisfied the requirements of Puerto Rico law to fully assess the environmental impacts of the project. *See Mission Industrial de P.R. Inc. v. Junta de Calidad Ambiental de P.R.*, 145 D.P.R. 908, 914, 1998 PR Sup. LEXIS 121 at *4-*5 (1998) (Exh. 9). Opponents of the Facility challenged the EQB’s decision approving the EIS, but the Puerto Rico Supreme Court approved the EQB’s decision in full. *See id.* The Puerto Rico Supreme Court rejected concerns regarding the Facility’s coal ash, specifically approving the EQB’s conclusion that the ash is not a hazardous material, and that the ash would manufactured into useful materials and not disposed of as waste in Puerto Rico landfills. *Id.* at 947, 1998 PR Sup. LEXIS 121 at *60.

2. October 31, 1996 Puerto Rico Environmental Quality Board Approval. Likewise, in 1996, the Puerto Rico EQB issued a resolution determining that the proposed AES Puerto Rico Facility would be producing a useful product by manufacturing aggregate and would not be generating a material subject to regulation as a solid or hazardous waste.¹¹

3. May 3, 2000 Puerto Rico EQB Approval. In May 2000, the Puerto Rico EQB reaffirmed that the AES Puerto Rico Facility would be producing a useful material through the manufacture of AGREMAX and would not be generating solid or hazardous waste. Specifically, the EQB determined that “AES-PR’s manufactured aggregate” would not be subject to regulation as a solid waste because it is produced as part of “an internal process carried out in the same generation place that produces a material that will not enter into the flow of solid waste that is discarded or abandoned.” *See* EQB Resolution, No. R-00-14-2 (May 3, 2000) (“EQB 2000 Resolution”) (unofficial translation) (Exh. 12).¹²

4. May 3, 2005 Puerto Rico EQB Approval. In May 2005, in a further resolution, EQB restated the findings of its 1996 and 2000 resolutions, and unequivocally reaffirmed that AES Puerto Rico’s manufactured aggregate is a product approved for use in applications such as structural fill and road base and is not a solid waste.

The aggregate manufactured by AES, consists in the processing of Fly Ash and Bed Ash which is generated as a result of the combustion of the coal in the production of electric energy. The procedure to convert the fly ash and the bed ash into manufactured aggregate, consists in the mixture and

¹¹ EQB Resolution, *In re AES Puerto Rico, L.P. Barrio Jobos Guayama, Puerto Rico*, No. R-96-39-1 (Oct. 31, 1996) (unofficial translation) (Exh. 11), available at <http://www.agremax.com/Downloads/R-00-96-2%20ENGLISH.pdf>.

¹² Available at <http://www.agremax.com/Downloads/R-00-14-2%20ENGLISH.pdf>



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hydration of both types of ash which when compacted, cemented and cured is scarified in pieces 3" in diameter, resulting in a product with several applications. This final product is commercially denominated and marketed by AES as "manufactured aggregate," which has an average size of 3 inches and reaches a hardness of 1,750 to 2,300 pounds of pressure per square inch which may be used as structural fill and base for roads, among others.

Through Resolutions R-96-39-1 and R-00-14-2 dated October 29, 1996 and April 25, 2000 respectively, it was established that the procedure to produce manufactured aggregate is exempt from the requisite of permit for a solid waste installation, since the ash is processed as part of AES' operations and does not enter the flow of the nonhazardous solid waste. Likewise, it is established that the ash is not considered as a solid waste, since it is not discarded, disposed of, or abandoned in this process. Rather it is used as raw material to produce Manufactured Aggregate as a final product and it is not stored indefinitely in the facility.

EQB Resolution, *In re BFI of Ponce, Inc.*, No. R-05-14-11 at 1-2 (May 3, 2005) ("2005 EQB Resolution") (Exh. 13) (unofficial translation) and *id.* at 4 (based on its review of EPA's 2000 regulation, EQB found that "the ash generated by AES are exempt from the regulation by reason of the beneficial use given to these in the different applications in which they are used.").

5. Puerto Rico EQB and EPA Air Permit Approvals. AES Puerto Rico also sought and received permission to manufacture, store, and transport its manufactured aggregate for use in Puerto Rico under its air permits. The Company's Title V Air Permit specifically contemplated an "aggregate manufacturing process" and provided that under one operating scenario "trucks may be used to haul ... manufactured aggregate offsite for on island beneficial uses." Title V Permit at 4, 65 (Exh. 7). Moreover, in August 2004, EPA Region 2 explicitly approved amendments to the PSD Permit for the Facility, which, among other things, specifically permitted the option of using trucks to haul aggregate material for on-island uses.¹³ EPA Region 2 also expressly approved the use of manufactured aggregate as cover on top of the inactive portion of the plant's coal pile.¹⁴

6. EPA's C²P² Program Endorses the beneficial use of CCPs in Puerto Rico, including using manufactured aggregate in structural fill and road base applications. In 2001, EPA joined with the American Coal Ash Association, the Utility Solid Waste Activities Group, and the Department of Energy to form the Coal Combustion Products Partnership ("C²P²"), a

¹³ Letter from W. Mugdan, Director of Environmental Planning and Protection, Region 2 to C. Reyes, AES Puerto Rico, at 2 & Attach. II at 12 (Aug. 10, 2004) (Exh. 14).

¹⁴ See *id.* at 2 & Attach. I at 2.



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“cooperative effort” to “encourage the beneficial use of CCPs.” See EPA, Coal Combustion Products Partnership (C²P²) (Apr. 2003) (Exh. 15). Over the course of almost a decade, EPA was actively seeking partners and recruiting companies to participate in their program as “Champions” who would “include generators and users of coal combustion products who, in joining the program, will work to increase their use or marketing of CCPs. *Id.* at 2.”¹⁵

As part of the program, in July 2005, representatives from EPA Headquarters and EPA Region 2, as well as the Director of EPA’s Caribbean Environmental Protection Division, conducted workshops in Puerto Rico to encourage participation in the EPA’s C2P2 “challenge program,” an EPA program that awarded participants based on “innovation” and “increased usage” of CCPs, and to conduct “member recruitment,” as EPA deemed Puerto Rico “a focus area” to expand beneficial use of CCPs. See John Sager, EPA C²P² Program Coordinator, *C²P² in Puerto Rico: A Partnership at Work* at 2 and 14 (July 12, 2005) (Exh. 16) (“EPA CCPs Presentation”).¹⁶ According to EPA, beneficial use was an EPA “priority” and “coal ash” was an EPA beneficial use “priority material.” EPA CCPs Presentation at 26. As such, EPA’s challenge program specifically targeted “utilities” and encouraged them “to increase marketing” of their CCPs. EPA CCPs Presentation at 16. The EPA, the Federal Highway Administration, and the Department of Energy all were “partners” in this effort, holding summits, providing tools, conducting workshops, preparing publications, and conducting research. EPA CCPs Presentation at 17-18 (highlighting the federal government’s “C2P2 Partnership Support”).

Moreover, EPA made absolutely clear that the beneficial use of CCPs included producing a manufactured aggregate and using that material in a range of applications, including structural fill and road bed applications. EPA explained that there was significant beneficial use of CCPs in the United States, specifically including 5.5 million tons for “structural fill use.” EPA CCPs Presentation at 8. According to EPA, the “environmental benefits of CCP Use” included to “reduce ... the amount of CCPs landfilled,” as well as to “conserve natural resources” and “improve roads and buildings.” EPA CCP Presentation at 9. Indeed, EPA repeatedly touted the fact that significant portions of the many millions of tons of CCPs that were used in the United States were used in “structural fill” (14.55%) and “road base-sub base” (4.65%). EPA CCPs Presentation at 12. To continue and expand that scope, EPA expressly encouraged the construction of what EPA described as “greener roadways,” including with the use of “*Sub-base Materials made using fly ash aggregate and bottom ash...*” EPA CCPs Presentation at 29

¹⁵ EPA ended the partnership in 2010.

¹⁶ See also Agenda, U.S. Environmental Protection Agency Innovative Coal Combustion Products Meeting 2005 July 11 & 12, 2005 (Exh. 17). Carl-Axel P. Soderberg, Director of Caribbean Environmental Protection Division, provided opening remarks, Charles Harewood, from EPA Region 2’s RCRA Program Branch and Eduardo Gonzalez, EPA Puerto Rico arranged the workshop, and John Sager from EPA Headquarters, along with Mr. Harewood and Dave Goss of the American Coal Ash Association are listed on the agenda presenting an “Overview of the Beneficial Use of Coal Combustion Product Partnership.”



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(emphasis added) (also supporting “Embankments and Fills made using CCPs”). Lest there be any question whether this was directed to AES Puerto Rico, EPA explicitly included in its Puerto Rico presentation a slide captioned “CCP Uses – FBC Ash” and listed “aggregate manufacturing” as one of the encouraged uses. EPA CCPs Presentation at 33. Moreover, subsequently, EPA commended the work of AES Puerto Rico in developing and marketing AGREMAX in collaboration with the Puerto Rico Construction Cluster and the University of Puerto Rico by giving them a Coal Combustion Products Partnership Award.¹⁷

Given this EPA presentation and program—and that AES Puerto operated then and now the *only* coal-fired power plant on the island of Puerto Rico that would be producing a significant quantity of CCPs—it is reasonable to conclude that EPA was fully supporting AES Puerto Rico’s efforts to market AGREMAX for beneficial use, including in structural fill and road base applications.

7. The use of AGREMAX to upgrade nearby roads was specifically requested by Guayama and approved by EQB. Even beyond the general authorizations and approvals outlined above, at the same time that EPA was encouraging the use of AGREMAX through its C²P² Program, the Municipality of Guayama contracted with AES Puerto Rico to use AGREMAX to improve rural dirt roads.¹⁸ Before doing so, the Municipality of Guayama requested the opinion of the Puerto Rico EQB, which confirmed that AGREMAX could be beneficially used in these kinds of applications.¹⁹ Moreover, these were important and extremely beneficial uses for Guayama. As the Municipality of Guayama explained in subsequent, similar requests to the Puerto Rico EQB, using AGREMAX to improve these roads gave the rural communities better access to government services (such as police protection, medical services, and garbage collection) and greater ability to travel despite rainstorms which otherwise would have made dirt roads impassable.²⁰

**C. Engineering Analyses of AES Puerto Rico’s Manufactured Aggregate
Confirm the Aggregate is Effective for Use in a Range of Applications,
Including in Roads and Structural Applications**

To produce AGREMAX, the Facility mixes and hydrates the coal ash in an on-site mill, and the resulting mixture is then compacted and cured. This process of hydration, compaction and curing physically converts the coal ash into a hardened, manufactured aggregate, which is

¹⁷ See Letter from M. Hale, EPA, to A. Ruiz Ortiz; Research Award (2006) (collectively Exh. 18).

¹⁸ See Letter from R. Melendez, Municipality of Guayama, to N. Watlington, AES Puerto Rico (Nov. 4, 2005) (Exh. 19).

¹⁹ Letter from J. Colon, EQB, to H. Mendoza, Municipality of Guayama (Sept. 20, 2005) (Exh. 20).

²⁰ Letter from H. Mendoza, Municipality of Guayama, to C. Freytes, EQB (Apr. 26, 2006) (Exh. 21).



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then further processed to reduce it to the appropriate size (similar to gravel) for its intended use. In 2004, experts at the Texas A&M Transportation Institute and others performed tests on the aggregate and confirmed that it has the necessary physical, mechanical, and chemical properties for effective use in a range of applications, including road base and structural applications.²¹

Supported by these engineering analyses and other studies documenting the effectiveness and safety of AGREMAX,²² and encouraged by the federal government (including EPA) to make beneficial use of its CCPs, AES Puerto Rico has marketed its manufactured aggregate for beneficial use, including as a subbase material for highways, roads, parking lots, and as structural fill. Subbase material essentially serves as a foundation for these applications, performing a critical load-bearing function. When used in roads and similar applications, AGREMAX has been placed as a subbase, compacted, and then covered by a layer of native aggregate material (known as “mogolla”) and/or by asphalt which serves as the road surface.²³ By using AGREMAX in this fashion, it conserves natural resources, as the manufactured aggregate replaces virgin sand and gravel that would have been excavated from local quarries in Puerto Rico. Moreover, depending on the nature of the project, permits and approvals are obtained from the relevant regulatory agencies. In an effort to ensure its customers use the aggregate properly, AES Puerto Rico required AGREMAX customers to enter into a “terms of use” contract, agreeing to comply at all times with applicable federal, Commonwealth, and local laws, regulations, ordinances, orders, and requirements.²⁴

Engineering analyses by governmental agencies and experts have confirmed the benefits of using AES Puerto Rico’s manufactured aggregate in construction projects, including road building. In 2010, AES Puerto Rico approached the Federal Highway Administration (“FHA”) and Puerto Rico’s Department of Transportation and Public Works (“PR DOT”) to discuss using AGREMAX in lieu of virgin aggregate in public highway projects.²⁵ After reviewing the

²¹ See S. Kochyil and D. N. Little, Physical, Mechanical and Chemical Evaluation of Manufactured Aggregate (2004) (the AES Puerto Rico “manufactured aggregate has excellent properties for use as a fill or structural fill” and “may serve successfully as a subbase or base layer in pavements”) (Exh. 22), available at <http://www.agremax.com/Downloads/Final%20Report%20-%20TTL.pdf>.

²² See, e.g., S. Hwang *et al.*, *Phaselous vulgaris* Growth under the Influence of Manufactured Coal Ash Aggregates, 2 Coal Combustion and Gasification Products 38-44 (2010) (Exh. 23) (concluding that AES-PR’s manufactured aggregate is “beneficial as a subsoil substitute for open-pit restoration to phyto-viable land, reducing exploitation of natural soil resources and enhancing plant growth”); L. Urquiza Roman, Victor E. Rivera Associates, Inc., Memorandum to N. Watlington, AES, Manufactured Aggregate Laboratory Test Results (Feb. 13, 2006) (Exh. 24) (providing test results on engineering properties of AGREMAX), available at <http://www.agremax.com/Downloads/Tab%2010%20-%20Geotechnical%20Reports.pdf>.

²³ See e.g., Photographs of AGREMAX in Various Projects (Exh. 25).

²⁴ Example contract attached here as Exh. 26 (designated as CBI).

²⁵ See Emails between J. Torres-Gonzales, FHA, and N. Watlington, AES Puerto Rico (May 3, 2010) (Exh. 27).



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existing data on AGREMAX, including Texas A&M Transportation Institute testing, *supra* note 22, PR DOT and FHA took samples of AGREMAX and conducted their own additional laboratory testing to assess its engineering properties. See Letter from H. Cortes Laclaustra, PR DOT, to AES-PR (Oct. 22, 2010) (Exh. 28). Based on these test results, PR DOT and FHA expressed interest in using AGREMAX as a subbase and inquired whether AES Puerto Rico had performed testing on existing projects in which AGREMAX had been used. *Id.*

Consequently, AES Puerto Rico asked an engineering expert, Dr. Ramon Carrasquillo, to conduct an investigation into the existing condition and performance of actual applications of AGREMAX as a subbase in Puerto Rico. In December 2010, Dr. Carrasquillo collected field data, including core samples, and performed standard engineering tests and calculations to assess the effectiveness of the material. See R. Carrasquillo to R. Rivera, Re: Testing and Condition Assessment Results Projects with Agremax Subbase AES Puerto Rico Guayama, Puerto Rico (January 7, 2011) (Exh. 29). Dr. Carrasquillo found the AGREMAX subbase to be performing extremely well after several years of service. *Id.* at 18 (finding “no evidence of distress of Agremax subbase”). Indeed, based on engineering tests, Dr. Carrasquillo concluded that the in-place strength and performance results “are much greater than expected for a typical subbase and exceed” the predictions made by Kochyil and Little, discussed *supra*, based on their laboratory testing. *Id.* at 16 (Exh. 29). Dr. Carrasquillo and AES Puerto Rico presented the results of this study to PR DOT and FHA representatives in early 2011.²⁶

Based upon their own testing and Dr. Carrasquillo’s findings, in May 2011, PR DOT and FHA agreed to use AGREMAX in a pilot program for federal and state road projects.²⁷ Before using the material, in June 2011, the agencies conducted another round of testing of the physical qualities of AGREMAX.²⁸ PR DOT and FHA then proceeded to use AGREMAX as subbase for a highway and bridge on PR-3, KM 142, in Guayama. Per its agreement with the agencies, AES Puerto Rico conducted further testing of the strength and effectiveness of AGREMAX in October 2011, after it was installed as the subbase.²⁹ Additional testing is planned for mid-2013 to evaluate how AGREMAX is performing one year after the bridge’s completion. There is every reason to expect that this testing will be consistent with all previous testing, performed by

²⁶ Ramon L. Carrasquillo, *A Field Investigation of Agremax as Subbase for Pavement Applications: Field Testing and Condition Assessment Results Guayama and Salinas, Puerto Rico December 2010* (Feb. 10, 2011) (Exh. 30).

²⁷ E.g., Email from C. Ayala, Puerto Rico Highway and Transportation Authority, to R. Rivera, AES Puerto Rico (June 16, 2011) (Exh. 31). This is consistent with the federal government’s long support for the beneficial use of coal ash products in road construction. See Federal Highway Administration, *Fly Ash Facts for Highway Engineers*, FHWA-IF-03-019 (2003) (Exh. 32), available at <http://www.fhwa.dot.gov/pavement/recycling/fafacts.pdf>.

²⁸ See Email from C. Ayala, Puerto Rico Highway and Transportation Authority, to R. Rivera, AES Puerto Rico (June 16, 2011) (Exh. 31).

²⁹ See Jaca & Sierra Testing Laboratories, Inc., California Bearing Ratio of Soils in Place Test Report (ASTM D 4429) (Oct. 31, 2011) (Exh. 33).



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engineering experts and governmental agencies alike, which has consistently found that AGREMAX is an effective subbase material.

**D. Environmental Testing of AES Puerto Rico Manufactured Aggregate Using
Established EPA Tests Confirm the Aggregate Is Not Toxic or Hazardous**

The aggregate that AES Puerto Rico manufactures has been repeatedly tested according to established EPA methods and has been repeatedly found to be neither toxic nor a “hazardous waste.” To be a “hazardous waste” under RCRA due to toxicity, a material must fail the EPA-approved Toxicity Characteristic Leaching Protocol (“TCLP”). 40 C.F.R. § 261.24. As outlined above, since the Puerto Rico EQB’s initial review and approval of the Facility in 1996, it has consistently held the position that the ash from the plant “is not toxic . . . [and] is not considered as a hazardous material according to Subtitle C of [RCRA].” EIS § 4.6.7.1 (Exh 10); *see also See Mision Industrial de P.R. Inc. v. Junta de Calidad Ambiental de P.R.*, 145 D.P.R. 908, 947, 1998 PR Sup. LEXIS 121 at *60 (1998) (Exh. 9) (rejecting challenges to EQB’s approval of EIS’s assessment of ash).

Subsequent TCLP testing has repeatedly confirmed that AGREMAX is not hazardous. In 2005, in considering a request to authorize use of AGREMAX as daily cover in landfills, the Puerto Rico EQB hired an independent laboratory to test and analyze AGREMAX under the TCLP. Based on this testing, EQB affirmed that AGREMAX is neither toxic nor hazardous,³⁰ and that its beneficial use is not subject to regulation as a solid waste.³¹ In addition, the Puerto Rico House of Representatives Southern Commission for Economic Development also conducted its own in-depth examination of AGREMAX in 2006-2007—including an evaluation of data by an independent laboratory—and concluded that AGREMAX is neither toxic nor hazardous to humans or the environment.³² Further, to fulfill a condition of AES Puerto Rico’s current Title V Operating Permit, the Company submitted TCLP results to the EQB in April 2012 that show, once again, that AGREMAX is not hazardous.³³

In addition, as the Puerto Rico EQB was considering developing guidelines for the beneficial use of CCPs, AES Puerto Rico engaged an independent laboratory to evaluate data regarding the levels of radionuclides, as well as inorganic constituents, in AES-PR’s CCPs. This

³⁰ See Letter from J. Rodriguez Colon, EQB to N. Watlington, AES Puerto Rico (Feb. 22, 2005) (Exh. 34), available at <http://www.agremax.com/Downloads/EQB%20Samples%20Results.pdf>.

³¹ See 2005 EQB Resolution, *supra* at 3 (Exh. 13) (unofficial translation).

³² See Camara de Representantes, Decimo Informe Parcial Conjunto, 15th Asamblea Legislativa, 5th Sesion Ordinaria, R. de la C. 305 (Feb. 13, 2007) (Exh. 35), available at <http://www.agremax.com/Downloads/Tab%208%20-%20House%20of%20Representatives%20Repbort.pdf>

³³ See R. Rodrique, AES Puerto Rico, transmitting AES Puerto Rico Compliance Annual Certification Statement for Title V Operating Permit to L. Sierra, Puerto Rico EQB (excerpts) (Apr. 2, 2012) (Exh. 36).



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analysis, submitted to EQB in 2011, likewise confirms that the materials pose no significant risks.³⁴ AES Puerto Rico also has submitted to EPA Region 2 results of testing done of AGREMAX placed at the AES Puerto Rico Well Field, and none of the concentrations detected in these tests present any reason for concern.³⁵

II. An EPA RCRA § 7003 Order Would be Arbitrary and Capricious and Otherwise Unlawful Because the Beneficial Use of AGREMAX Is Not Disposal of a Solid Waste

An EPA RCRA § 7003 Order would be without merit because EPA has not adduced evidence that AES Puerto Rico's CCPs are a "solid waste."³⁶ As such, AES Puerto Rico's CCPs, including AGREMAX, are not subject to RCRA § 7003. RCRA defines "solid waste" as "discarded material." 42 U.S.C. § 6903(27). Consistent with RCRA's legislative history,³⁷ courts hold that RCRA applies only to "discarded material," meaning material that is "disposed of," "thrown away," or "abandoned." *Am. Petroleum Inst. v. EPA*, 216 F.3d 50, 55-56 (D.C. Cir. 2000); *Am. Mining Congress v. EPA*, 824 F.2d 1177, 1179 (D.C. Cir. 1987).

Conversely, material is not "discarded" when it has been or will be put to beneficial use. *See, e.g., Safe Air For Everyone v. Meyer*, 373 F.3d 1035, 1041-42 (9th Cir. 2004); *No Spray Coalition, Inc. v. City of New York*, 252 F.3d 148, 150 (2d Cir. 2001) (pesticide sprayed with intention of killing pests is not "discarded" as it is put to its intended and useful purpose); *Oklahoma v. Tyson Foods*, 2010 U.S. Dist. Lexis 14941 (N.D. Okla. Feb. 17, 2010) (poultry

³⁴ Letter from A. Dyer, AES Puerto Rico, to P.J. Nieves Miranda, EQB (Mar. 25, 2011) (Exh. 37).

³⁵ See 02-2012 WP Analytical Results.pdf, attached to Email from S. Boxerman to G. Nurkin, EPA (Dec. 20, 2012) (Exh. 38). Among other tests, AES Puerto Rico tested AGREMAX using EPA's Synthetic Precipitation Leaching Protocol ("SPLP"), a laboratory test designed to evaluate the potential for constituents to leach from material when exposed to rainfall. See 02-2012 WP Analytical Results.pdf at 52 (summarizing SPLP results for Sample 6-Wells Area (AGREMAX)). No concentrations from the SPLP tests of AGREMAX exceeded the MCL for the given constituent or, where no MCL exists, the Regional Screening Level for tap water for the constituent. Further, just one constituent detected in any of the soil tested using the SPLP test exceeded the MCL. See 02-2012 WP Analytical Results.pdf at 44 (Sample 2-Wells Area). Under the SPLP test, antimony was detected at 6.5 µg/L, which just barely exceeds the MCL of 6.0 µg/L. Even assuming that came from the AGREMAX at the well field, as outlined *infra*, well-understood adsorption, attenuation and dilution factors would be expected to reduce this concentration substantially before the constituent could ever theoretically reach the ground water, let alone any potential drinking water source. See EPA, Proposed Rule, Disposal of Coal Combustion Residues from Electric Utilities, 75 Fed. Reg. 35128, 35140 (June 21, 2010); EPA, Soil Screening Guidance: User's Guide at 29 (July 1996) (identifying factors), available at <http://www.epa.gov/superfund/health/conmedia/soil/pdfs/ssg496.pdf>.

³⁶ It is beyond dispute that the CCPs produced at the AES Puerto Rico facility are not hazardous wastes as the material has repeatedly passed the TCLP regulatory test. See *supra* Part I.D.

³⁷ H.R. Rep. No. 94-1491, at 2, reprinted in 1976 U.S.C.C.A.N. 6238, 6240 (noting that "waste" is a misleading word, as "much industrial and agricultural waste is reclaimed or put to new use and is therefore not a part of the discarded materials disposal problem the committee addresses.").



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litter beneficially used as fertilizers by farmers was not a “solid waste” subject to a RCRA § 7002 action).³⁸ For example, in *Meyer*, the Ninth Circuit held that grass residues burned to fertilize fields were not “discarded,” even though the smoke was entering the air. 373 F.3d at 1044-46 & n.13. *Meyer* and other cases establish that (1) that the intended and beneficial use of a product is not the “discard” of a “waste,” and (2) that the intended use governs, regardless of whether the useful product contains chemical substances that may allegedly cause effects in the environment. See *Meyer*, 373 F.3d at 1046 n.13; *No Spray Coalition*, 252 F.3d at 150 (pesticide application not “discarding” of a waste despite being released into the air); *Tyson Foods*, 2010 U.S. Dist. Lexis 14941 (fact that crop did not need all of the phosphorous contained in chicken litter used as fertilizer did not convert agricultural application into disposal of a “solid waste”).

Under these principles, the beneficial use of CCPs by AES Puerto Rico is not and cannot be the “discard” of a “solid waste” that is being thrown away or abandoned. As outlined above, from the initial development of the AES Puerto Rico Facility through the present day, AES Puerto Rico has systematically pursued regulatory approvals from the Puerto Rico government who has repeatedly determined that “AES-PR’s manufactured aggregate” does not “enter into the flow of solid waste that is discarded or abandoned.” E.g., EQB 2000 Resolution, *supra* at 5 (Exh. 12). Consistent with that approval and others from EQB, AES Puerto Rico does not abandon its material—it distributes the materials under contracts with terms of use under which users commit to comply with applicable federal, Commonwealth, and local laws.

Moreover, as detailed, EPA came to Puerto Rico and explicitly encouraged AES Puerto Rico to participate in “partnership” with the federal government to market manufactured aggregate for beneficial use as structural fill, road base materials, and other applications. Indeed, given all of the regulatory determinations regarding AGREMAX, and EPA’s own programs to encourage AES Puerto Rico to beneficially use CCPs like AGREMAX, it is hard to see how EPA could now contend that AES Puerto Rico could be subject to RCRA § 7003 for using AGREMAX in the exact applications that were approved by Puerto Rico EQB and encouraged by EPA.

Further, even beyond the government approvals, to confirm the value of the material as an aggregate, the Company has commissioned independent engineering studies by university researchers who have confirmed that AES Puerto Rico’s CCPs, including AGREMAX, can be used beneficially. In fact, as outlined, engineering studies conducted on existing AGREMAX projects have confirmed both that the material is being used as a road subbase material and is performing that role effectively, thereby confirming the aggregate is used beneficially and not simply being discarded.³⁹ Based on those studies, the federal government is now in the process

³⁸ See also Letter, Boxerman to Webster, *supra* at 6-8 (Exh. 5).

³⁹ See R. Carrasquillo, *supra* at 10 and at n.27 (Exh. 29 and 30).



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of conducting a pilot project with the Puerto Rico DOT to further assess the engineering qualities of AGREMAX in order to decide whether to use the material in federal highway projects in Puerto Rico. In contrast to this documented proof that AGREMAX has been and can be used beneficially, EPA has not shared with AES Puerto Rico *any* contrary data or evidence.

Treating AES Puerto Rico's CCPs as a "solid waste" would also run contrary to EPA long-standing, national guidance. In 2000, before the AES Puerto Rico Facility was operating, EPA made a formal regulatory determination that beneficial uses of CCPs would be exempt from regulation under RCRA's "Bevill Amendment" (42 U.S.C. § 6921(b)(3)(A)(ii), codified at 40 C.F.R. § 261.4(b)). As part of its determination, EPA specifically found that beneficial uses included using coal combustion products in road bed and structural fill. 65 Fed. Reg. 32214, 32229 (May 22, 2000). EPA observed that, in addition to having no information that such uses posed significant risks or had caused damage, "we do not want to place any unnecessary barriers on the beneficial use of coal combustion wastes so that they can be used in applications that conserve natural resources and reduce disposal costs." *Id.*

EPA has never changed the core aspects of this longstanding policy, and in its 2010 proposal to regulate the disposal of coal ash, EPA proposed to reaffirm this determination. 75 Fed. Reg. 35128 (June 21, 2010) ("EPA 2010 Proposal"). EPA concluded that "[t]o date, EPA has still seen no evidence of damages from the beneficial uses of CCRs that EPA identified in its original Regulatory Determination." 75 Fed. Reg. at 35154. As a result, EPA has proposed to "leave the Bevill determination in effect for the beneficial use of CCRs," and, as such, the "legal status of CCRs that are beneficially used would remain entirely unchanged (*i.e.*, they would not be regulated under subtitle C of RCRA as a hazardous waste, nor subject to any federal non-hazardous waste requirements)." *Id.* at 35186. In view of these policy statements, Region 2 should not be contemplating imposing solid waste management requirements on AGREMAX, let alone attempting to require storage of the material in a lined storage cell or landfill.

In short, consistent with EPA's well-established policy encouraging beneficial use of CCPs, AES Puerto Rico has produced and provided AGREMAX for use solely as an aggregate product in road and structural applications. It did so after Puerto Rico determined the aggregate was a product, not a waste, and has confirmed the value of the aggregate in engineering studies. Without specific evidence to the contrary, EPA Region 2 should not stake out the position that CCPs are discarded "solid waste" through a RCRA § 7003 Order.

III. RCRA § 7003 Does Not Apply Because the Beneficial Use of AGREMAX Does Not Present an Imminent and Substantial Endangerment to Health or the Environment

EPA Region 2 also lacks authority to issue a RCRA § 7003 administrative order because even if AES Puerto Rico's CCPs were a "solid waste," EPA has presented no evidence that conditions may present an imminent and substantial endangerment to health or the environment.



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This standard requires evidence of “a reasonable prospect that a serious, near-term threat to human health or the environment exists.” *Me. People’s Alliance & Natural Res. Def. Council v. Mallinckrodt, Inc.*, 471 F.3d 277, 279 (1st Cir. 2006). While “imminence” does not require that the “harm necessarily will occur or that the actual damage will manifest itself immediately,” the conditions must be of the “kind that poses a near-term threat.” *Id.* at 288. No “imminent and substantial endangerment” exists “if the risk of harm is remote in time, speculative in nature, and de minimis in degree.” *Sanchez v. Esso Std. Oil De P.R.*, No. 08-2151, 2010 U.S. Dist. LEXIS 103949, at *28-30 (D.P.R. Sept. 29, 2010) (citing *Smith v. Potter*, 187 F. Supp. 2d 93, 98 (S.D.N.Y. 2001), quoting *Wilson v. Amoco Corp.*, 989 F.Supp. 1159, 1172 (D. Wyo. 1998)).

In this matter, fundamental to demonstrating a near-term threat is proof that (1) an allegedly harmful constituent is actually present at a harmful level at a specific site; (2) there is an actual pathway by which people (or plants and wildlife) are or will be actually exposed to the constituent at harmful levels; and (3) that such an actual risk of exposure to a hazard is caused by AES Puerto Rico’s AGREMAX program. This necessarily requires site-specific evidence. Therefore, it is not enough to show the “mere presence” of contaminants in the environment. *Sanchez v. Esso Std. Oil De P.R.*, No. 08-2151, 2010 U.S. Dist. LEXIS 103949, at *28-30 (D.P.R. Sept. 29, 2010), citing *Mallinckrodt*, 471 F.3d at 282. Nor can EPA Region 2 rely on supposition or conjecture. Rather, “[d]emonstrating the existence of conditions that may present an imminent and substantial endangerment . . . generally requires careful documentation and scientific evidence.” EPA RCRA Guidance, at 9. EPA Region 2 has not shown that it has evidence adequate to support a RCRA § 7003 determination.

A. The LEAF Testing Report Does Not Establish an Imminent and Substantial Endangerment

At EPA Region 2’s request, EPA’s Office of Research and Development issued a draft report that analyzed the results of Methods 1313 and 1314 of a new leaching test called the Leaching Environmental Assessment Framework (“LEAF”). See A.C. Garrabrants et al., *Leaching Behavior of “AGREMAX” Collected from a Coal-Fired Power Plant in Puerto Rico*, EPA-600/R-12/XXX (Nov. 2012) (“LEAF Report”). To our knowledge, this is the only testing of AGREMAX that EPA has conducted. Its results are wholly inadequate to support a RCRA § 7003 Order. We have previously detailed for you the serious flaws with the LEAF Report, see Letter from S. Boxerman to G. Nurkin (January 10, 2013) (Exh. 4) (“January 10 Letter”),⁴⁰ so we only summarize them here.

First, the LEAF methods are new, and EPA has not established any guidance for interpreting or calibrating LEAF laboratory leaching data in order to apply those data to the real

⁴⁰ Because EPA chose to release the draft LEAF Report to the public, AES Puerto Rico has decided to release the January 10 Letter responding to that Report and make the January 10 Letter part of the administrative record.



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world environment in which an aggregate material such as AGREMAX is used in roads and structural applications. Indeed, to our knowledge, the use of LEAF to support an EPA action would be unprecedented, as EPA has never used any of the LEAF methods in any proceeding before. To attempt to base a RCRA § 7003 enforcement order on these wholly new⁴¹ laboratory test methods—essentially developing the guidelines for how to interpret and apply LEAF results in the context of an enforcement proceeding—would be an abuse of discretion and contrary to basic principles of fairness and due process. *See* January 10 Letter at 1-2, 4-5.

Second, the Report misuses the LEAF testing results. The LEAF methods provide a range of results that reflect a variety of possible conditions with the intent and expectation that the user would focus on results that match real-world conditions. But EPA's LEAF Report does not attempt to do so. Instead, the Report cherry picks the most extreme results—*i.e.*, the maximum detected concentrations of constituents—regardless of how unlikely they are to occur in the real world. For example, in selecting results from the Method 1313 tests, the Report focuses on concentrations that resulted only when AGREMAX was mixed with a highly acidic solution of pH of 0.6. Of course, that will *never* happen in the real world environment in Puerto Rico, as the pH of local rainfall is approximately 5.0 or more than *10,000 times less acidic*. *See* January 10 Letter at 2-3, 10. Indeed, using EPA's LEAF data and conservative assumptions, we estimate that it would take approximately *55,000 to 100,000 years of rainfall* before the pH of the leachate could even theoretically reach the levels upon which EPA bases its concern. *See* January 10 Letter at 2-3, 10-11. Under no reasonable reading of RCRA §7003 could an event that may occur many tens of thousands of years from now be considered "imminent."

Third, the Report exacerbates its biased selection of test results by comparing them to an improper set of regulatory standards. The Report simply selects the most stringent standard it could find, regardless of whether that standard has any relevance to the potential exposure scenario of concern (such as the alleged potential for alleged groundwater contamination to occur and for that to impact a drinking water source). *See* January 10 Letter at 3, 6-8.

Fourth, the Report gives the misimpression that AGREMAX may pose risks to human health merely because the concentrations of certain constituents in laboratory leachate (at entirely unrealistic pH levels) may exceed an EPA-selected screening level. In reality, there are dilution and attenuation processes that would reduce any concentrations of constituents that may leach from AGREMAX well before they could reach actual drinking water sources. EPA itself has cautioned against drawing conclusions from laboratory leaching data without considering the dilution and attenuation factors – or without doing ground water modeling to assess whether material would migrate and impact drinking water. *See* January 10 Letter at 8-9. As many

⁴¹ Method 1314 has not even been published by EPA.



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courts have held, the mere exceedance of a screening level does not suffice to show an imminent and substantial endangerment.⁴²

Although we object to any use of the LEAF test, a more reasonable interpretation of the LEAF results—comparing results found under conditions that better approximate the real world to appropriate regulatory standards, and accounting for dilution and attenuation processes—shows that no constituents are expected to leach in concentrations that raise any concerns of an imminent and substantial endangerment to human health or the environment. *See* Attachment to January 10 Letter at 14-18. In short, any EPA enforcement action based on the LEAF Report would be arbitrary and capricious, an abuse of discretion, and contrary to law.

B. There Is No Evidence of an Imminent and Substantial Endangerment at Any Particular Locations

More fundamentally, EPA has presented no evidence that an imminent and substantial endangerment may exist at any particular location where AGREMAX has been placed. As noted, EPA's burden is to present evidence that constituents from AGREMAX may cause an actual risk through an identifiable exposure pathway in a particular location. In our ongoing discussions, EPA Region 2 has asked questions about the storage of AGREMAX at the AES Puerto Rico Facility. EPA Region 2 has also focused attention on the placement of AGREMAX to improve access to AES Puerto Rico's Well Field, which is located southwest of Guayama. And, EPA Region 2 has visited certain other locations in the Guayama and Salinas area where AGREMAX was been beneficially used. But EPA presented no evidence that AGREMAX poses any threat to human health or the environment at those specific locations. Absent such site-specific evidence, courts have rejected claims that an imminent and substantial endangerment may exist.⁴³

⁴² *See, e.g., Cordiano v. Metacon Gun Club, Inc.*, 575 F.3d 199, 212 (2d Cir. 2009) (soil, wetlands, sediment, and wetland surface water samples showing lead levels that exceeded residential risk screening standards were insufficient to prove an imminent and substantial endangerment); *Sullins v. ExxonMobil*, Civ. No. 08-04927 (N.D. Cal., Jan. 26, 2011) (finding no endangerment even though contamination levels exceeded regulatory screening levels); *Lewis v. FMC Corporation*, 786 F. Supp. 2d 690, 710 (W.D.N.Y. 2011) (presence of arsenic exceeding state standards insufficient as "without any evidence linking the cited standards to potential imminent and substantial risks to human health or wildlife").

⁴³ *See, e.g., Price v. United States Navy*, 39 F.3d 1011, 1021 (9th Cir. 1994) (affirming dismissal of imminent and substantial endangerment claim when plaintiff failed to offer site-specific testing data); *Kaladish v. Uniroyal Holding, Inc.*, No. 3:00 CV 854, 2005 U.S. Dist. LEXIS 17272, at *18-20 (D. Conn. Aug. 9, 2005) (entering summary judgment against plaintiffs on their imminent and substantial endangerment claim when they failed to offer testing of soil or groundwater samples from the allegedly contaminated area); *Fishel v. Westinghouse Elec. Corp.*, 640 F. Supp. 442, 446 (M.D. Pa. 1986) (declining to find imminent and substantial endangerment when plaintiffs' evidence was outdated).



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1. No Evidence of High Levels of Constituents. First, EPA has offered no evidence that AGREMAX has produced a high level of constituents at any specific location that may present an endangerment. (Indeed, EPA has not offered any site-specific data.) This is not surprising, given that repeated testing of AGREMAX itself under EPA's established methods has not identified any reason for concern. TCLP test results have consistently shown that CCPs from the Facility are neither toxic nor hazardous. *See supra* Part I.D. Likewise, other testing, including total metals analyses, have shown the concentrations are well within EPA's target risk range. *See* Letter from A. Dyer to P. Nieves, *supra* (Exh. 37). In addition, AES Puerto Rico has submitted to EPA Region 2 testing results of AGREMAX placed at the AES Puerto Rico Well Field.⁴⁴ None of the concentrations detected in these tests present any reason for concern. *See e.g., supra* at note 36 (discussing results). Simply put, without evidence of contamination, there can be no claim of endangerment.

2. No Evidence of an Exposure Pathway. Second, even if constituents existed at levels of concern at any particular location, EPA Region 2 has offered no evidence of a potential exposure pathway that could rise to an imminent and substantial endangerment. The Well Field and the AES Puerto Rico Facility are private properties of AES Puerto Rico, and access to them is restricted. Thus, there is no basis to think that the AGREMAX used there poses any risk via direct contact.⁴⁵

Nor is there any basis to find that AGREMAX would pose a risk via exposure to drinking water. As for the AES Puerto Rico Well Field, water drawn from this area flows via pipes directly to the AES Puerto Rico Facility where it is used in operations to generate electricity. None of the water drawn from these wells is used for drinking water, and thus no human exposure pathway from the Well Field is apparent. Likewise, there are no wells for drinking water on the AES Puerto Rico Facility. Nor has EPA presented any evidence to suggest that drinking water wells are drawing water with (or in any way threatened by) constituents that leached from AGREMAX placed at any other location.

Finally, there is no evidence of a viable exposure pathway via surface water. As noted, AGREMAX that has been used in road or structural applications is generally covered with asphalt or mogolla, which minimizes the potential for rainwater run-off to carry AGREMAX into surface waters. At the one place where AGREMAX is generally uncovered—the AES Puerto Rico Facility—rainwater run-off is carefully controlled. This run-off from the AGREMAX storage pile is collected in cement conveyances or drains, and directed to a lined run-off pond. That pond then flows into another lined, 18 million gallon pond, and the water in that pond is

⁴⁴ *See* 02-2012 WP Analytical Results.pdf, *supra* (Exh. 38).

⁴⁵ EPA Region 2 has not documented for AES Puerto Rico that AGREMAX poses a risk via direct exposure at any other locations. This is not surprising because AGREMAX used in road or structural applications is typically covered by other inert materials and not exposed for direct human contact.



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then reused in the plant. *See* AES Puerto Rico, Water Balance Schematic (Exh. 39). Thus, there is no reason to expect that runoff from the AGREMAX storage area is reaching surface water. Nor has EPA proffered any data or other evidence that runoff from the storage area may present a threat to human health or the environment.

* * * * *

AES Puerto Rico has diligently sought to provide affordable energy to the people of Puerto Rico in an environmentally sound manner. Consistent with that goal, Puerto Rico's energy provider PREPA and Puerto Rico's regulators agreed that AES Puerto Rico would not dispose of coal ash in a landfill in Puerto Rico, but instead would manufacture CCPs for beneficial uses, including an aggregate that would be used in roads and structural applications and thus would conserve landfill space as well as virgin materials. AES Puerto Rico has succeeded in this by manufacturing an aggregate with excellent engineering properties that has repeatedly been shown to be environmentally responsible. By contrast, EPA Region 2 has presented no credible evidence either that the aggregate is a waste subject to RCRA § 7003 or that the use of the aggregate may pose an imminent and substantial endangerment to human health or the environment. As such, any unilateral action EPA Region 2 would take under RCRA § 7003 to impose costly requirements, such as to construct a monofill at the Facility to store AES Puerto Rico's aggregate material, would be arbitrary and capricious and contrary to law.

Attachments



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February 5, 2013

FOR SETTLEMENT ONLY

Mr. Gary H. Nurkin
Assistant Regional Counsel
Waste & Toxic Substances Branch
U.S. Environmental Protection Agency, Region 2
290 Broadway
New York, NY 10007

Re: AES Puerto Rico L.P.

Dear Gary:

I write on behalf of AES Puerto Rico, LP to follow up on our meeting of December 17, 2012. This letter and its attachments are for settlement only, are not admissible in any proceeding for any purpose, and are not admissions of law or fact.

As discussed at the meeting and outlined in various correspondence, AES Puerto Rico submits that it has beneficially used and is properly storing its manufactured aggregate (AGREMAX) at its facility. We dispute that there is any legal or factual basis for EPA to require AES Puerto Rico to take any measures beyond its current practices. Nonetheless, as promised, AES Puerto Rico has evaluated alternative management options for AGREMAX and developed draft assessment plans to evaluate potential AGREMAX impacts to ground water at its plant site and the AES Puerto Rico "well field" area (used to provide process water to the plant). Specifically:

Daily cover. Consistent with our discussions, we have reviewed options for providing/selling AGREMAX to permitted subtitle D landfills in Puerto Rico to use as an alternative daily cover. In general, AES Puerto Rico would support the beneficial use of AGREMAX for such daily cover. The company believes using aggregate as daily cover would both improve the structural integrity of a landfill, as well as enhance the decomposition of waste in the fill.

That said, there are business and regulatory issues that would need to be resolved. First, AES Puerto Rico would need to negotiate the appropriate arrangements with permitted subtitle D landfill

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[CBI DELETION]

Second, the landfill owner/operator may also need a new/updated approval from the Puerto Rico Environmental Quality Board ("EQB") to use AGREMAX for daily cover. Previously, AES Puerto Rico had discussed using aggregate as daily cover with BFI (now Republic Services), and the EQB approved an application by BFI to undertake a pilot program to evaluate that proposed use. EQB Resolution, *In re BFI of Ponce, Inc.*, R-05-14-11 at 1-2 (May 3, 2005).² (Depending upon the results of a pilot program, we would expect that there would be further regulatory procedures after that.) AES Puerto Rico intends to move forward on this front as well.

Assessment Plans. To address EPA's concerns, for settlement purposes only, AES Puerto Rico offers to implement two assessment plans – one at the AES Puerto Rico well field property and one at the plant site. Copies of the proposed plans, prepared at our request by ENVIRON International Corp., are attached for EPA's review.

The goal of the plans would be straightforward: to assess whether constituents originating from AGREMAX are found in the ground water at the AES Puerto Rico well field property and/or the plant site. As described in the attached plans, AES Puerto Rico would follow the typical practice for this type of assessment by collecting one round of soil and ground water samples from locations noted in the proposed plans (subject to adjustment in the field depending upon specific conditions) and testing the samples for a suite of metals and other inorganic parameters. Consistent with what we presume EPA would prefer, the data would be compared to EPA ground water standards and/or screening levels (without prejudice to arguments AES Puerto Rico has raised or may raise concerning the relevance of such comparisons).

Further, as EPA is aware, the AES Puerto Rico property is located in an area that historically has been used for agricultural purposes (including to produce sugar cane), as well as for a range of industrial purposes. Indeed, adjacent to the facility are two known contaminated properties – the Fibers Public Supply Wells Superfund Site to the north, and the now closed Chevron refinery to the east. Both the Fibers site and Chevron property are undergoing remediation to address impacts to ground water. Indeed, the Fibers site study area extends into the AES Puerto Rico property, and the plume from the former Chevron facility extends beneath

¹ AES Puerto Rico designates this information
confidential business information.

[CBI DELETION]

to be

² Before the pilot program began, Allied Waste (who owned the BFI landfill) chose not to pursue the daily cover option. (Republic has since purchased Allied.) AES Puerto Rico has also raised the daily cover option with Waste Management ("WM"), but to date WM has preferred to continue to use its own cover materials.



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the AES Puerto Rico facility. Thus, in view of the historic land use in the vicinity and the proximity of the AES-PR Facility to these other known sources of contaminants, if constituents are found during the testing AES Puerto Rico has proposed, then care will need to be taken when attempting to determine the potential origin of the constituents.

We look forward to discussing this further with EPA at your convenience.

Sincerely,

A handwritten signature in black ink, appearing to read "Samuel B. Boxerman".

Samuel B. Boxerman

Attachments

cc: George Meyer
Leonard Grossman
William Sawyer
Marc Michael
David Buente
Matthew Krueger
Sylvia Lowrance